A diagram of a circuit

Description automatically generatedECEN 350 – Equation Sheet 1 (9/09/2024)

Power P = VI = I2R = V2/R. Average AC Power P =

A diagram of electrical circuits

Description automatically generated

A computer screen shot of a blue arrow

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Diode, VT is referred to as the thermal voltage, and n is an ideality factor ranging from 1 – 2. Assume n = 1 for ECEN 350.

Thermal Voltage: TK is the temperature in Kelvin, and q = is the magnitude of the charge of an electron or proton. .

A diagram of electrical components

Description automatically generated with medium confidence

Junction Temperature: TJ = TA + ∆TJ = TA + PRθJA. TJ = TA + PRθJA, where TA is the ambient temperature, P is the power dissipated, and RθJA is the thermal resistance in ˚C/W.

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A diagram of a bridge rectifier

Description automatically generatedA diagram of a rectifier

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A diagram of a graph

Description automatically generatedA graph of a function

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